

NDOW 1961

## JARBIDGE RIVER POPULATION STUDY

### Introduction

The West Fork of the Jarbidge River is one of the larger streams in northeastern Nevada. The steep gradient and relative infertility are not conducive to producing large fish, but conditions are adequate to maintain a good population of small wild rainbow trout. Catchable trout are stocked each year. Releases have varied from 2553 pounds in 1956 to 1000 pounds in 1958 and 1961. The value of this management practice is questionable, as it is evident from past creel checks that a large percentage of the catch is composed of wild rainbows.

A road parallels the stream from the Idaho line to the headwaters, and several permanent Forest Service campgrounds are present. As a result, a moderate amount of angler usage occurs during the summer months. It was estimated that this stream supported 2100 angler days in 1957.

A limited population study was initiated in 1961. All fish planted were marked by removal of the adipose fin. Thirty-five hundred rainbows averaging 8½ inches were stocked with half of this allotment released in late June and the remainder stocked in mid-July. Periodic creel checks were made during July and August to obtain angler success and catch data. The stream was sampled with electro-fishing gear in October.

### Results

Twenty-two spot checks were completed during the past year. The average success of 75 anglers was 3.9 fish per hour. Angler success data obtained during the past six years compared to the annual releases of catch-

---Jarbridge River Population Study

able trout are listed in the following table.

<u>Year</u>	<u>Total No. Anglers Checked</u>	<u>Ave. Success (fish per hour)</u>	<u>Pounds of Catchable Trout Planted</u>
1956	10	9.3	2,553
1957	17	3.3	1,400
1958	28	1.6	1,000
1959	47	1.5	1,328
1960	26	3.8	1,328
1961	75	3.9	1,000

Variations in angler success could not be correlated with yearly plantings. This is probably due to the limited amount of creel census data during most years.

It is evident that total usage during 1961 was considerably less than the estimate 1957 estimate of 2100 angler days. Pressure during the past year was probably between 500 and 1000 angler days.

Only twenty per cent of the 298 angler-caught trout examined were from the 1961 plantings. Average size was 6.8 inches. Wild trout averaged 6.1 inches, whereas hatchery rainbows averaged 9.5 inches. The length frequency distribution was as follows:

	<u>4in.</u>	<u>5in.</u>	<u>6in.</u>	<u>7in.</u>	<u>8in.</u>	<u>9in.</u>	<u>10in.</u>	<u>11in.</u>	<u>12in.</u>
Hatchery Rainbows	-	-	-	-	7	24	22	6	2
Wild Trout	8	52	100	60	15	1	1	-	-

Seven stream sections totaling 1065 feet in length were sampled in October. One hundred and six trout were captured with 35 being 6 inches or over. Only nine of the catchable trout had been stocked in 1961. Eleven hatchery fish were taken compared to 95 wild trout. The population estimate was 525 trout per mile including 173 catchables per mile. Six hundred feet of stream was sampled in August 1954. The trout population, at that

--Jarbridge River Population Study

time, averaged 387 fish per mile and 141 catchables per mile.

The game fish population in 1954 was composed of whitefish and brook, rainbow, and cutthroat trout. No brook or cutthroat trout were observed in 1961. The absence of brook trout is of particular significance, as over 5000 pounds of brook trout have been stocked in the Jarbridge River since 1954. The failure of this species to establish itself is difficult to understand.

Conclusions

The data obtained during the past year indicate that hatchery releases could be substantially reduced without adversely affecting fishing success. It is suggested that the 1962 allotment be reduced to 750 pounds. This change should be evaluated through creel checks and a fall population sampling.

No brook trout should be stocked in the future. Due to the failure of these fish to establish themselves following five years of releases, it appears that this species is not well suited to this environment.

Donald J. King  
District Fisheries Manager  
Owyhee District

Owyhee

DISTRICT

## MONTHLY FISHERIES REPORT - 2

West Fork, Jarbridge River

Stream, Lake, or Reservoir - County

Oct. 3, 1961

Month &amp; Year

## Job 3. General Research &amp; Fish Population Inventory

 A. Idaho state line (A)  
Sampling Station (Location and/or Number)

## B. TEMPERATURE

Time 10 - 11 AM Water 47

AIR	
SURFACE	
BOTTOM	

## C. WATER ANALYSIS

SECCHI	
pH	
D.O.	
CO <sub>2</sub>	
PHPH	
MO	

## D. FLOW (Stream)

AVER. WIDTH	
AVER. DEPTH	
AVER. VELOCITY	F/S
AVER. FLOW	CFS

## E. WATER LEVEL (Lake)

LEVEL	
DEPTH	

## F. ICE CONDITIONS

COVER	% DEPTH
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## G. FOODS (Plankton, Insects, Crayfish, etc.)

TYPES	ABUNDANCE	COMMENTS

## H. VEGETATION (Aquatic &amp; Terrestrial)

TYPES	ABUNDANCE	COMMENTS

## I. COVER (Vegeta., Bank, Pools)

TYPES	ABUNDANCE	COMMENTS

## J. PREDATION

TYPES	ABUNDANCE	COMMENTS

## K. FISH POPULATION SAMPLING

200 ft. section at above location

Location of Sampling Efforts

Electro fishing gear

Method of Sampling

FISH COLLECTED		(By Number and Size)									
SPECIES		2"	3"	4"	5"	6"	7"	8"	9"	10"	
Rainbow (Wild)		1	1	6	6	2	1	1			
" (Hatchery)							1	1			
Whitefish			1			1					
Sucker						1		2			

## L. POPULATION DENSITY (No. Fish per Mile, etc.)

Hatchery 9" Rainbow w. adipose clipped

Hatchery 7" Rainbow without adipose clipped

COMMENTS

~~Coyote~~ DISTRICT

MONTHLY FISHERIES REPORT - 2

~~Black Fork, Kentucky River~~  
Stream, Lake, or Reservoir

Elko

- County

Oct. 3, 1961

Month & Year

Job 3. General Research & Fish Population Inventory

A. 2 mi. upstream from state line B  
Sampling Station (Location and/or Number)

B. TEMPERATURE

~~WAX~~ Water temperature 48 degrees

AIR	
SURFACE	
BOTTOM	

C. WATER ANALYSIS

SECCHI	
pH	
D.O.	
CO <sub>2</sub>	
PHPH	
MO	

D. FLOW (Stream)

AVER. WIDTH	
AVER. DEPTH	
AVER. VELOCITY	F/S
AVER. FLOW	CFS

E. WATER LEVEL (Lake)

LEVEL	
DEPTH	

F. ICE CONDITIONS

COVER	% DEPTH
-------	---------

G. FOODS (Plankton, Insects, Crayfish, etc.) H. VEGETATION (Aquatic & Terrestrial)

TYPES	ABUNDANCE	COMMENTS

TYPES	ABUNDANCE	COMMENTS

I. COVER (Vegeta., Bank, Pools)

TYPES	ABUNDANCE	COMMENTS

J. PREDATION

TYPES	ABUNDANCE	COMMENTS

K. FISH POPULATION SAMPLING

200 foot section at above location  
Location of Sampling Efforts

Electro fishing gear.

Method of Sampling

FISH COLLECTED		(By Number and Size)									
SPECIES		2"	3"	4"	5"	6"	7"	8"	9"	10"	11"
Rainbow (Hatchery)						1	2	1	1		
(Wild)			3	4	5		2	1			

L. POPULATION DENSITY (No. Fish per Mile, etc.)

COMMENTS

Several Sculpins

~~District~~

## MONTHLY FISHERIES REPORT - 2

~~West Fork, Jarbidge River~~  
 Stream, Lake, or Reservoir

~~Elko~~  
 - County

~~Oct. 2, 1961~~  
 Month & Year

## Job 3. General Research &amp; Fish Population Inventory

 A. At Deer Gr. Crossing Cabin C  
 Sampling Station (Location and/or Number)

## B. TEMPERATURE

AIR	
SURFACE	
BOTTOM	

## C. WATER ANALYSIS

SECCHI	
pH	
D.O.	
CO <sub>2</sub>	
PHPH	
MO	

## D. FLOW (Stream)

AVER. WIDTH	
AVER. DEPTH	
AVER. VELOCITY	F/S
AVER. FLOW	CFS

## E. WATER LEVEL (Lake)

LEVEL	
DEPTH	

## F. ICE CONDITIONS

COVER	% DEPTH
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## G. FOODS (Plankton, Insects, Crayfish, etc.)

TYPES	ABUNDANCE	COMMENTS

## H. VEGETATION (Aquatic &amp; Terrestrial)

TYPES	ABUNDANCE	COMMENTS

## I. COVER (Vegeta., Bank, Pools)

TYPES	ABUNDANCE	COMMENTS

## J. PREDATION

TYPES	ABUNDANCE	COMMENTS

## K. FISH POPULATION SAMPLING

~~200' section of stream location~~
~~Electro-fishing gear~~  
 Method of Sampling

FISH COLLECTED		(By Number and Size)										
SPECIES		2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	12"
Rainbow (wild)		7	2	5	5	7		1				
Rainbow (hatchery)									1		1	
Panostemus								1				
Sculpin (numerous)												

## L. POPULATION DENSITY (No. Fish per Mile, etc.)

Both hatchery trout had adipose fin clipped

COMMENTS

Oct. 3, 1961

Stream, Lake, or Reservoir

Month &amp; Year

Opposite Mahony R. S. (D)

Job 3. General Research & Fish Population Inventory

A.

**Time:** Noon **Sampling Station (Location and/or Number)**

## B. TEMPERATURE

### C. WATER ANALYSIS

#### D. FLOW (Stream)

AIR	
SURFACE	
BOTTOM	

SECCHI	
pH	
D.O.	
CO <sub>2</sub>	
PHPH	
MO	

AVER. WIDTH	
AVER. DEPTH	
AVER. VELOCITY	F/S
AVER. FLOW	CFS

E. WATER LEVEL (Lake)

LEVEL	
DEPTH	

## F. ICE CONDITIONS

COVER	% DEPTH
-------	---------

G. FOODS (Plankton, Insects, Crayfish, etc.)

TYPES	ABUNDANCE	COMMENTS

## H. VEGETATION (Aquatic & Terrestrial)

TYPE	ABUNDANCE	COMMENTS

I. COVER (Vegeta., Bank, Pools)

TYPES	ABUNDANCE	COMMENTS
165 : section at above location		

## J. PREDATION

TYPES	ABUNDANCE	COMMENTS
With Electro- fishing gear		

## K. FISH POPULATION SAMPLING

Location of Sampling	Efforts	4"	5"	6"	7"	Method of Sampling	11"
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Whitefish		2 1 1			
FISH COLLECTED (adip. clip)		(By Number and Size)			
R	SPECIES (wild)	5	5	5	2
		3	2		

Several 1" - 3" R not recovered

L. POPULATION DENSITY (No. Fish per Mile, etc.)

### COMMENTS





Ogden  
DISTRICT

## MONTHLY FISHERIES REPORT - 2

West Fork Jarbidge River  
Stream, Lake, or Reservoir

Oct. 3-4, 1961  
Month & Year

Job 3. General Research &amp; Fish Population Inventory

A. 1 mi. below Snowflake Gulch (F)  
Sampling Station (Location and/or Number)

## B. TEMPERATURE

AIR	
SURFACE	
BOTTOM	

## E. WATER LEVEL (Lake)

LEVEL	
DEPTH	

## C. WATER ANALYSIS

SECCHI	
pH	
D.O.	
CO <sub>2</sub>	
PHPH	
MO	

## D. FLOW (Stream)

AVER. WIDTH	
AVER. DEPTH	
AVER. VELOCITY	F/S
AVER. FLOW	CFS

## F. ICE CONDITIONS

COVER	% DEPTH
-------	---------

## G. FOODS (Plankton, Insects, Crayfish, etc.)

TYPES	ABUNDANCE	COMMENTS

## H. VEGETATION (Aquatic &amp; Terrestrial)

TYPES	ABUNDANCE	COMMENTS

## I. COVER (Vegeta., Bank, Pools)

TYPES	ABUNDANCE	COMMENTS

## J. PREDATION

TYPES	ABUNDANCE	COMMENTS

## K. FISH POPULATION SAMPLING

100 ft. section same location as above  
Location of Sampling Efforts

Electro-fishing gear  
Method of Sampling

FISH COLLECTED		(By Number and Size)							
SPECIES		2"	3"	4"	5"	6"	7"	8"	
Rainbow (wild)				2					
" (Marked)							1		

## L. POPULATION DENSITY (No. Fish per Mile, etc.)

COMMENTS

Missed 3 - 4" rainbow

# Oghee District

FF 110 B

## DISTRICT

### MONTHLY FISHERIES REPORT - 2

West Fork Jarbidge River

Oct. 3, 1961

Stream, Lake, or Reservoir

Month & Year

Job 3. General Research & Fish Population Inventory

A. Just above Sawmill Cr. (6)

Sampling Station (Location and/or Number)

B. TEMPERATURE  
time 3PM

AIR	
SURFACE	
BOTTOM	

C. WATER ANALYSIS

SECCHI	
pH	
D.O.	
CO <sub>2</sub>	
PHPH	
MO	

D. FLOW (Stream)

AVER. WIDTH	
AVER. DEPTH	
AVER. VELOCITY	F/S
AVER. FLOW	CFS

E. WATER LEVEL (Lake)

LEVEL	
DEPTH	

F. ICE CONDITIONS

COVER	% DEPTH
-------	---------

G. FOODS (Plankton, Insects, Crayfish, etc.)

TYPES	ABUNDANCE	COMMENTS

H. VEGETATION (Aquatic & Terrestrial)

TYPES	ABUNDANCE	COMMENTS

I. COVER (Vegeta., Bank, Pools)

TYPES	ABUNDANCE	COMMENTS

J. PREDATION

TYPES	ABUNDANCE	COMMENTS

K. FISH POPULATION SAMPLING  
same as above

100 ft. section

Electro-fishing gear

Location of Sampling Efforts

Method of Sampling

FISH COLLECTED

SPECIES	2"	3"	4"	5"	6"	7"
Dolly Varden	1		2	2	2	
Rainbow (wild)	1	1			2	

L. POPULATION DENSITY (No. Fish per Mile, etc.)

Missed approx. 5

COMMENTS